

**IN THE CLAIMS:**

Please amend the claims and add the following new claims:

1. to 15. (canceled).

16. (previously presented) A method for producing an optical component of quartz glass, said method comprising:

elongating a coaxial arrangement of a core rod and a hollow cylinder of a predetermined length,

wherein the arrangement is supplied in vertical orientation to a heating zone and is softened therein zonewise, starting with a lower end thereof, and the component is drawn off downwards from a softened region of the arrangement,

the hollow cylinder having an inner bore that is provided with a constriction in the region of its lower end on which the core rod is supported, and

wherein a raw cylinder is provided which is longer than the hollow cylinder to be elongated,

the method further comprising mechanically machining the raw cylinder so that the raw cylinder has a bore that is mechanically machined to a final dimension, and

wherein the raw cylinder bore is heated in a collapsing zone spaced apart from a front end of the raw cylinder at a distance corresponding at least to the length of the hollow cylinder so that the raw cylinder is collapsed in part, and

wherein the hollow cylinder is subsequently separated in the region of the collapsing zone.

17. (currently amended) The method according to claim 16, wherein the raw cylinder

**comprises** ~~consists of~~ at least two start cylinders connected to each other at the front end and joined in the region of an attachment zone in the form of a joint, and wherein the step of heating and partial collapsing of the raw cylinder is carried out in the area of the attachment zone.

18. (previously presented) The method according to claim 17, wherein at least one of the start cylinders has a reduced wall thickness in the region of the attachment zone.

19. (previously presented) The method according to claim 18, wherein the region of reduced wall thickness is configured as a conical taper.

20. (currently amended) The method according to claim 16, wherein the raw cylinder is softened in vertical orientation, is suspended in an annular heating element in the region of the collapsing zone and is elongated under ~~the action of its own~~ weight **of said raw cylinder**.

21. (previously presented) The method according to claim 16, wherein the raw cylinder has a cylindrical outer jacket which prior to heating and collapsing in the region of the collapsing zone is provided with a radially surrounding notch.

22. (previously presented) The method according to claim 16 wherein a negative pressure relative to a pressure externally applied to a cylindrical outer surface of the raw cylinder is produced in a bore therein during the collapsing.

23. to 29. (canceled).

30. (new) A method for producing an optical component of quartz glass, said method comprising:

producing a hollow cylinder having a length from a raw cylinder of quartz glass as starting material, said raw cylinder having a length greater than the length of the hollow cylinder, said producing including the steps of

- a. mechanically machining the raw cylinder so that the raw cylinder has an inner bore therein that has been machined to a final dimension;
- b. heating the raw cylinder bore in a collapsing zone so as to partially collapse a portion the raw cylinder and inner bore thereof in said collapsing zone, said collapsing zone being spaced at a distance from an end of the raw cylinder, said distance being at least the length of the hollow cylinder; and

c. separating the hollow cylinder in the region of the collapsing zone from a remaining portion of the raw cylinder so that the hollow cylinder has a first end with a constriction therein comprising at least part of the collapsed portion of the raw cylinder;.

forming a coaxial arrangement with said hollow cylinder wherein a core rod of quartz glass is supported coaxially in the hollow cylinder, with the core rod having an end supported in the constriction in the first end of the hollow cylinder; and

elongating the coaxial arrangement, including

supplying the coaxial arrangement in vertical orientation to a heating zone and

softening the coaxial arrangement therein zonewise, starting with a lower end thereof,

and

drawing off the optical component downward from a softened region of the coaxial arrangement.

31. (new) The method according to claim 30, wherein the raw cylinder comprises at least two start cylinders connected to each other in an attachment zone, and wherein said heating and partial collapsing of the raw cylinder takes place in the attachment zone, and the separating makes one of said start cylinders become the hollow cylinder, and another of the start cylinders becomes or is used to form a second hollow cylinder.

32. (new) The method according to claim 31, wherein the second hollow cylinder has a constriction therein in the attachment zone.
33. (new) The method according to claim 31, and further comprising reducing a wall thickness of at least one of the start cylinders in the attachment zone.
34. (new) The method according to claim 32, wherein the reducing of the wall thickness includes configuring a conical taper in a region of the reduced wall thickness.
35. (new) The method according to claim 30, and further comprising softening the raw cylinder in a vertical orientation by suspending an annular heating element in a region of the collapsing zone, and said raw cylinder is elongated by a force from weight of at least part of the raw cylinder in said vertical orientation.
36. (new) The method according to claim 30, and further comprising providing a cylindrical outer jacket with a radially surrounding notch to the raw cylinder just prior to heating and collapsing thereof in the collapsing zone.
37. (new) The method according to claim 30, and further comprising producing in the inner bore of the raw cylinder a negative pressure relative to a pressure externally applied to a cylindrical outer surface of the raw cylinder during the collapsing.